(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 2 June 2005 (02.06.2005)

PCT

(10) International Publication Number WO 2005/049965 A1

(51) International Patent Classification7:

E21C 35/06

(21) International Application Number:

PCT/SE2004/001682

(22) International Filing Date:

17 November 2004 (17.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0303100-2	21 November 2003 (21.11.2003)	SE
0400057-6	14 January 2004 (14.01.2004)	SE
0400401-6	20 February 2004 (20.02.2004)	SE
0400986-6	16 April 2004 (16.04.2004)	SE

- (71) Applicant (for all designated States except US): ATLAS COPCO ROCK DRILLS AB [SE/SE]; Patent, S-701 91 Örebro (SE).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): HARTWIG, Sverker [SE/SE]; Gripsvallsvägen 7, S-187 33 Täby (SE).
- (74) Agent: EHRNER & DELMAR PATENTBYRÅ AB; Box 10316, S-100 55 Stockholm (SE).

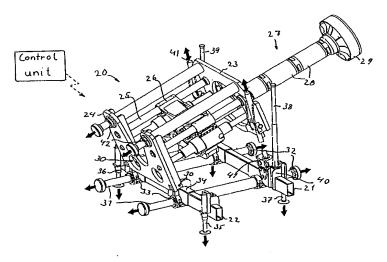
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: BORING RIG



(57) Abstract: A boring rig (14) for underground excavating boring and including a substructure (21,22), propulsion means, stabilizing means (31,32,35,36,37,38,39,42), and a boring unit (20) having cutter head (29) rotation and forcing means (26), wherein the rig has a first direction of general travel and two sideways directions, and wherein the boring unit (20) is pivotally attached to the substructure for pivotal movement of the boring unit into an operating direction. The stabilizing means include horizontal (31,32) and vertical (35,36,37,38,39) stabilizing means that are attached to the substructure (21,22) in order, in active positions, to be pressed against an adjacent rock face so as to transmit forces from the boring unit (20), that are occurring during boring, to said rock face.

